

Applicants: FLORIAN KERN ET AL.  
U.S. Application No.: 09/600,564  
Combined Amendment and Election of Species

**Amendments to the Specification:**

Please replace the paragraph which starts at line 14 of page 3 and ends at page 6, line 5, with the following amended paragraph:

This object is achieved by peptides or peptide derivatives thereof selected from the following group of sequences:

R<sub>N</sub> - Gin Thr Met Leu Arg Lys Glu Val Asn Ser Gin Leu Ser Leu Gly - R<sub>C</sub> (SEQ ID No. 1)

R<sub>N</sub> - Cys Asn Glu Asn Pro Glu Lys Asp Val Leu Ala Glu Leu Val Lys - R<sub>C</sub> (SEQ ID No. 2)

R<sub>N</sub> - Leu Val Lys Gin Ile Lys Val Arg Val Asp Met Val Arg His Arg- R<sub>C</sub> (SEQ ID No. 12)

R<sub>N</sub> - Ala Ala Asn Lys Leu Gly Gly Ala Leu Gin Ala Lys Ala Arg Ala - R<sub>C</sub> (SEQ ID No. 13)

R<sub>N</sub> - Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met- R<sub>C</sub> (SEQ ID No. 2)

R<sub>N</sub> - Asp Glu Leu Arg Arg Lys Met Met Tyr Met- R<sub>C</sub> (SEQ ID No. 3)

R<sub>N</sub> - Glu Leu Arg Arg Lys Met Met Tyr Met Cys Tyr Arg Asn Ile Glu- R<sub>C</sub> (SEQ ID No. 4)

R<sub>N</sub> - Val- Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser- R<sub>C</sub> (SEQ ID No. 15)

R<sub>N</sub> - Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr Ser- R<sub>C</sub> (SEQ ID No. 5)

R<sub>N</sub> - Met Ser Ile Tyr Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile- R<sub>C</sub> (SEQ ID No. 16)

R<sub>N</sub> - Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn - R<sub>C</sub> (SEQ ID No. 17)

R<sub>N</sub> - Ala Leu Pro Leu Lys Met Leu Asn Ile - R<sub>C</sub> (SEQ ID No. 18)

R<sub>N</sub> - His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly - R<sub>C</sub> (SEQ ID No. 19)

R<sub>N</sub> - Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu Leu Cys Pro- R<sub>C</sub> (SEQ ID No. 20)

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R<sub>N</sub> - Val Ala Phe Thr Ser His Glu His Phe- R<sub>C</sub> (SEQ ID No. 21)

R<sub>N</sub> - Ala Phe Thr Ser His Glu His Phe Gly - R<sub>C</sub> (SEQ ID No. 22)

R<sub>N</sub> - Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu Gly Val Trp- R<sub>C</sub> (SEQ ID No. 23)

R<sub>N</sub> - Val Cys Ser Met Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile- R<sub>C</sub> (SEQ ID No. 24)

R<sub>N</sub> - Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr- R<sub>C</sub> (SEQ ID No. 25)

R<sub>N</sub> - Asn Thr Arg Ala Thr Lys Met Gln Val- R<sub>C</sub> (SEQ ID No. 26)

R<sub>N</sub> - Thr Arg Ala Thr Lys Met Gln Val Ile - R<sub>C</sub> (SEQ ID No. 27)

R<sub>N</sub> - Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe Thr Val Leu - R<sub>C</sub> (SEQ ID No. 28)

R<sub>N</sub> - Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val His His Tyr- R<sub>C</sub> (SEQ ID No. 29)

R<sub>N</sub> - Leu Asn Ile Pro Ser Ile Asn Val His His Tyr Pro Ser Ala Ala - R<sub>C</sub> (SEQ ID No. 30)

R<sub>N</sub> - Glu Asp Val Pro Ser Glu Lys Leu Phe Met His Val Thr Leu Gly - R<sub>C</sub> (SEQ ID No. 31)

R<sub>N</sub> - Cys Arg Val Leu Cys Cys Tyr Val Leu - R<sub>C</sub> (SEQ ID No. 6)

R<sub>N</sub> - Arg Val Leu Cys Cys Tyr Val Leu Glu - R<sub>C</sub> (SEQ ID No. 7)

R<sub>N</sub> - Val Leu Cys Cys Tyr Val Leu Glu Glu - R<sub>C</sub> (SEQ ID No. 8)

R<sub>N</sub> - Glu Leu Arg Arg Lys Met Met Tyr Met- R<sub>C</sub> (SEQ ID No. 9)

R<sub>N</sub> - Asp Glu Leu Arg Arg Lys Met Met Tyr - R<sub>C</sub> (SEQ ID No. 10)

R<sub>N</sub> - Asp Glu Leu Arg Arg Lys Met Met Tyr Met - R<sub>C</sub> (SEQ ID No. 14)

R<sub>N</sub> - Asp Glu Glu Glu Ala Ile Val Ala Tyr Tyr Leu Ala Thr Ala Gly - R<sub>C</sub> (SEQ ID No. 32)

or

R<sub>N</sub> - Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp Glu Glu Glu - R<sub>C</sub> (SEQ ID No. 33)

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wherein

R<sub>N</sub> represents -H or an amino protective group, or at least one further amino acid outside the peptide or peptide derivative;

R<sub>C</sub> represents -OH or a carboxy protective group, or at least one further amino acid outside the peptide or peptide derivative;

wherein said peptide derivatives have a deletion, insertion or substitution of one, two or three amino acids of the above mentioned sequences, or the sequence is truncated to nine contiguous amino acids, the deletion being an N-terminal and/or C-terminal deletion;

wherein said peptide derivatives essentially have the functionality of one of the explicitly stated peptides:

Cys Arg Val Leu Cys Cys Tyr Val Leu (SEQ ID No. 6)

Arg Val Leu Cys Cys Tyr Val Leu Glu (SEQ ID No. 7)

Val Leu Cys Cys Tyr Val Leu Glu Glu (SEQ ID No. 8)

Glu Leu Arg Arg Lys Met Met Tyr Met (SEQ ID No. 9)

Asp Glu Leu Arg Arg Lys Met Met Tyr (SEQ ID No. 10)

Asp Glu Leu Arg Arg Lys Met Met Tyr Met (SEQ ID No. 14)

Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu Ser Leu Gly (SEQ ID No. 1)

Cys Asn Glu Asn Pro Glu Lys Asp Val Leu Ala Glu Leu Val Lys (SEQ ID No. 11)

Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val Arg His Arg (SEQ ID No. 12)

Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys Ala Arg Ala (SEQ ID No. 13)

Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met (SEQ ID No. 2)

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Asp Glu Leu Arg Arg Lys Met Met Tyr Met (SEQ ID No. 3)  
Glu Leu Arg Arg Lys Met Met Tyr Met Cys Tyr Arg Asn Ile Glu (SEQ ID No. 4)  
Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser (SEQ ID No. 15)  
Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr Ser (SEQ ID No. 5)  
Met Ser Ile Tyr Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile (SEQ ID No. 16)  
Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn (SEQ ID No. 17)  
Ala Leu Pro Leu Lys Met Leu Asn Ile (SEQ ID No. 18)  
His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly (SEQ ID No. 19)  
Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu Leu Cys Pro (SEQ ID No. 20)  
Val Ala Phe Thr Ser His Glu His Phe (SEQ ID No. 21)  
Ala Phe Thr Ser His Glu His Phe Gly (SEQ ID No. 22)  
Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu Gly Val Trp (SEQ ID No. 23)  
Val Cys Ser Met Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile (SEQ ID No. 24)  
Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr (SEQ ID No. 25)  
Asn Thr Arg Ala Thr Lys Met Gln Val (SEQ ID No. 26)  
Thr Arg Ala Thr Lys Met Gln Val Ile (SEQ ID No. 27)  
Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe Thr Val Leu (SEQ ID No. 28)  
Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val His His Tyr (SEQ ID No. 29)  
Leu Asn Ile Pro Ser Ile Asn Val His His Tyr Pro Ser Ala Ala (SEQ ID No. 30)  
Glu Asp Val Pro Ser Glu Lys Leu Phe Met His Val Thr Leu Gly (SEQ ID No. 31)  
Asp Glu Glu Glu Ada Ile Val Ala Tyr Tyr Leu Ala Thr Ala Gly (SEQ ID No. 32)

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or

Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp Glu Glu Glu (SEQ ID No. 32)

(each of the above :sequences = reference sequence);

i.e., to induce the production of interferon- $\gamma$  or TNF- $\alpha$  in CD8<sup>+</sup> T cells, especially from subjects immunized with HCMV and having the appropriate HLA type.

Please replace the paragraph at lines 18-22 of page 6 with the following amended paragraph:

Preferred reference sequences are:

Val Cys Ser Met Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile; (SEQ ID No. 24)

Asn Thr Arg Ala Thr Lys Met Gln Val; (SEQ ID No. 26)

Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr Ser; (SEQ ID No. 5)

Cys Arg Val Leu Cys Cys Tyr Val Leu. (SEQ ID No. 6).